

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Currently amended) A method of displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising
3 information of a plurality of types including information of a first type and information of a
4 second type, the method comprising:
5 displaying a graphical user interface (GUI) on the display;
6 displaying, in a first area of the GUI, a representation of the multimedia
7 information stored by the multimedia document, the displayed representation of the multimedia
8 information comprising a representation of information of the first type and a representation of
9 information of the second type;
10 displaying a first lens moveable in response to user input over representations of
11 multimedia information displayed in the GUI, the first lens covering a first portion of the first
12 area; and
13 displaying, in a second area of the GUI, a representation of multimedia
14 information displayed in the first portion of the first area, the representation of multimedia
15 information displayed in the second area comprising a portion of the representation of
16 information of the first type covered by the first lens and a portion of the representation of
17 information of the second type covered by the first lens.

1 2. (Original) The method of claim 1 wherein displaying the representation of
2 the multimedia information stored by the multimedia document in the first area of the GUI
3 comprises:
4 displaying a first thumbnail image in the first area of the GUI, the first thumbnail
5 image comprising the representation of information of the first type; and

6 displaying a second thumbnail image in the first area of the GUI, the second
7 thumbnail image comprising the representation of information of the second type.

1 3. (Original) The method of claim 1 wherein displaying, in the second area
2 of the GUI, the representation of multimedia information displayed in the first portion of the first
3 area comprises:

4 displaying the portion of the representation of information of the first type
5 covered by the first lens in a first panel in the second area of the GUI; and

6 displaying the portion of the representation of information of the second type
7 covered by the first lens in a second panel in the second area of the GUI.

1 4. (Original) The method of claim 1 wherein displaying, in the second area
2 of the GUI, the representation of multimedia information displayed in the first portion of the first
3 area comprises:

4 determining a first time and a second time associated with the first lens;

5 displaying, in the second area of the GUI, a representation of information of the
6 first type occurring between the first time and the second time associated with the first lens; and

7 displaying, in the second area of the GUI, a representation of information of the
8 second type occurring between the first time and the second time associated with the first lens.

1 5. (Original) The method of claim 1 further comprising:

2 receiving user input moving the first lens to cover a second portion of the first
3 area; and

4 responsive to the user input, automatically changing the information displayed in
5 the second area of the GUI such that the representation of multimedia information displayed in
6 the second area of the GUI corresponds to the representation of multimedia information included
7 in the second portion of the first area.

1 6. (Currently amended) The method of claim 1 further comprising:

2 displaying a second lens moveable in response to user input over representations
3 of multimedia information displayed in the GUI, the second lens covering a first portion of the
4 second area; and

5 displaying, in a third area of the GUI, a representation of multimedia information
6 corresponding to the first portion of the second area, the representation of multimedia
7 information displayed in the third area comprising a portion of the representation of information
8 of the first type covered by the second lens and a portion of the representation of information of
9 the second type covered by the second lens.

1 7. (Original) The method of claim 6 wherein displaying, in the third area of
2 the GUI, the representation of multimedia information corresponding to the first portion of the
3 second area comprises:

4 determining a first time and a second time associated with the second lens;
5 displaying, in the third area of the GUI, a representation of information of the first
6 type occurring between the first time and the second time associated with the second lens; and
7 displaying, in the third area of the GUI, a representation of information of the
8 second type occurring between the first time and the second time associated with the second lens.

1 8. (Original) The method of claim 6 wherein:

2 displaying the representation of the multimedia information stored by the
3 multimedia document in the first area of the GUI comprises:

4 displaying a first thumbnail image in the first area of the GUI, the first
5 thumbnail image comprising the representation of information of the first type; and

6 displaying a second thumbnail image in the first area of the GUI, the
7 second thumbnail image comprising the representation of information of the second type;

8 displaying the representation of multimedia information displayed in the first
9 portion of the first area in the second area of the GUI comprises:

10 displaying the portion of the representation of information of the first type
11 covered by the first lens in a first panel in the second area of the GUI; and

12 displaying the portion of the representation of information of the second
13 type covered by the first lens in a second panel in the second area of the GUI; and
14 displaying the representation of multimedia information corresponding to the first
15 portion of the second area in the third area of the GUI comprises:
16 displaying the representation of information of the first type corresponding
17 to the first portion of the second area of the GUI in a first sub-area of the third area of the GUI;
18 and
19 displaying the representation of information of the second type
20 corresponding to the first portion of the second area of the GUI in a second sub-area of the third
21 area of the GUI.

1 9. (Original) The method of claim 6 further comprising:
2 receiving a user input moving the second lens to cover a second portion of the
3 second area; and
4 responsive to the user input, automatically changing the information displayed in
5 the third area of the GUI such that the representation of multimedia information displayed in the
6 third area of the GUI corresponds to the representation of the multimedia information included in
7 the second portion of the second area.

1 10. (Original) The method of claim 6 further comprising:
2 receiving a user input moving the first lens to cover a second portion of the first
3 area; and
4 responsive to the user input, automatically:
5 changing the information displayed in the second area of the GUI such
6 that the representation of multimedia information displayed in the second area of the GUI
7 corresponds to the representation of multimedia information included in the second portion of
8 the first area; and
9 changing the information displayed in the third area of the GUI such that
10 the representation of multimedia information displayed in the third area of the GUI corresponds

11 to the representation of the multimedia information included in the second portion of the second
12 area.

1 11. (Original) The method of claim 6 further comprising:
2 displaying a sub-lens covering a portion of the first area of the GUI corresponding
3 to the first portion of the second area of the GUI covered by the second lens.

1 12. (Original) The method of claim 11 further comprising:
2 receiving a user input moving the second lens to cover a second portion of the
3 second area; and
4 responsive to the user input, automatically changing a position of the sub-lens to
5 cover a portion of the first area of the GUI corresponding to the second portion of the second
6 area.

1 13. (Original) The method of claim 1 wherein:
2 the information of the first type corresponds to video information; and
3 the representation of the information of the first type comprises one or more video
4 keyframes extracted from the video information.

1 14. (Original) The method of claim 13 wherein:
2 the information of the second type corresponds to audio information; and
3 the representation of information of the second type comprises text information
4 obtained from transcribing the audio information.

1 15. (Original) The method of claim 13 wherein:
2 the information of the second type corresponds to closed-caption (CC) text
3 information; and
4 the representation of information of the second type comprises text information
5 included in the CC text information.

1 16. (Original) The method of claim 1 further comprising:

2 receiving information indicating a user-specified concept of interest; and
3 analyzing the multimedia information stored in the multimedia document to
4 identify one or more locations in the multimedia information that are relevant to the user-
5 specified concept of interest;

6 wherein displaying the representation of multimedia information in the first area
7 of the GUI comprises annotating the one or more locations in the multimedia information that
8 are relevant to the user-specified concept of interest; and

9 wherein displaying, in the second area of the GUI, a representation of multimedia
10 information displayed in the first portion of the first area comprises annotating the one or more
11 locations in the multimedia information that are relevant to the user-specified concept of interest
12 and that are located in the first portion of the first area.

1 17. (Original) The method of claim 1 further comprising:
2 receiving input indicating selection of a portion of the multimedia information
3 occurring between a first time and a second time; and
4 performing a first operation on the portion of the multimedia information
5 occurring between a first time and a second time.

1 18. (Currently amended) A method of displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising
3 information of a first type and information of a second type, the method comprising:
4 displaying a graphical user interface (GUI) on the display;
5 displaying, in a first area of the GUI, a representation of the multimedia
6 information stored by the multimedia document occurring between a start time (t_s) and an end
7 time (t_e) associated with the multimedia document, the displayed representation of the
8 multimedia information comprising a representation of information of the first type occurring
9 between t_s and t_e and a representation of information of the second type occurring between t_s
10 and t_e , where ($t_e > t_s$);

11 displaying a first lens moveable in response to user input over representations of
12 multimedia information displayed in the GUI, the first lens emphasizing a portion of the first
13 area of the GUI, the portion of the first area emphasized by the first lens comprising a
14 representation of multimedia information occurring between a first time (t_1) and a second time
15 (t_2), where ($t_s \leq t_1 < t_2 \leq t_e$); and

16 displaying, in a second area of the GUI, the representation of multimedia
17 information occurring between t_1 and t_2 , the representation of multimedia information displayed
18 in the second area comprising a representation of information of the first type occurring between
19 t_1 and t_2 and a representation of information of the second type occurring between t_1 and t_2 .

1 19. (Currently amended) The method of claim 18 further comprising:
2 displaying a second lens moveable in response to user input over representations
3 of multimedia information displayed in the GUI, the second lens emphasizing a portion of the
4 second area of the GUI, the portion of the second area emphasized by the second lens comprising
5 a representation of multimedia information occurring between a third time (t_3) and a fourth time
6 (t_4), where ($t_1 \leq t_3 < t_4 \leq t_2$); and

7 displaying, in a third area of the GUI, the representation of multimedia
8 information occurring between t_3 and t_4 , the representation of multimedia information displayed
9 in the third area comprising a representation of information of the first type occurring between t_3
10 and t_4 and a representation of information of the second type occurring between t_3 and t_4 .

1 20. (Original) The method of claim 19 further comprising:
2 changing the position of the first lens in response to user input such that the first
3 lens emphasizes a portion of the first area of the GUI comprising a representation of multimedia
4 information occurring between a fifth time (t_5) and a sixth time (t_6), where ($t_s \leq t_5 < t_6 \leq t_e$),
5 ($t_5 \neq t_1$), and ($t_6 \neq t_2$); and

6 responsive to the change in the position of the first lens, automatically displaying,
7 in the second area of the GUI, the representation of multimedia information occurring between t_5

8 and t_6 , the representation of multimedia information displayed in the second area comprising a
9 representation of information of the first type occurring between t_5 and t_6 and a representation of
10 information of the second type occurring between t_5 and t_6 .

1 21. (Original) The method of claim 19 further comprising:
2 changing the position of the second lens in response to user input such that the
3 second lens emphasizes a portion of the second area of the GUI comprising a representation of
4 multimedia information occurring between a fifth time (t_5) and a sixth time (t_6), where ($t_1 \leq t_5 <$
5 $t_6 \leq t_2$), ($t_5 \neq t_3$), and ($t_6 \neq t_4$); and
6 responsive to the change in the position of the second lens, automatically
7 displaying, in the third area of the GUI, the representation of multimedia information occurring
8 between t_5 and t_6 , the representation of multimedia information displayed in the third area
9 comprising a representation of information of the first type occurring between t_5 and t_6 and a
10 representation of information of the second type occurring between t_5 and t_6 .

1 22. (Original) The method of claim 19 further comprising:
2 displaying a third lens emphasizing a portion of the first area of the GUI
3 comprising a representation of multimedia information occurring between t_3 and t_4 .

1 23. (Original) The method of claim 22 further comprising:
2 changing the position of the second lens in response to user input such that the
3 second lens emphasizes a portion of the second area of the GUI comprising a representation of
4 multimedia information occurring between a fifth time (t_5) and a sixth time (t_6), where ($t_1 \leq t_5 <$
5 $t_6 \leq t_2$), ($t_5 \neq t_3$), and ($t_6 \neq t_4$); and
6 responsive to the change in the position of the second lens, automatically
7 changing the position of the third lens such that the third lens emphasizes a portion of the first
8 area of the GUI comprising a representation of multimedia information occurring between t_5 and
9 t_6 .

1 24. (Original) The method of claim 18 wherein:
2 the information of the first type is video information;
3 the information of the second type is audio information;
4 the representation of the information of the first type comprises one or more video
5 keyframes extracted from the video information; and
6 the representation of information of the second type comprises text information
7 obtained from transcribing the audio information.

1 25. (Original) The method of claim 18 wherein:
2 the information of the first type is video information;
3 the information of the second type is closed-caption (CC) text information;
4 the representation of the information of the first type comprises one or more video
5 keyframes extracted from the video information; and
6 the representation of the information of the second type comprises text
7 information included in the CC text information.

1 26. (Original) The method of claim 18 further comprising:
2 receiving information indicating a first topic; and
3 analyzing the multimedia information stored in the multimedia document to
4 identify one or more locations in the multimedia information that are relevant to the first topic;
5 wherein displaying the representation of the multimedia information stored by the
6 multimedia document occurring between t_s and t_e in the first area of the GUI comprises
7 highlighting the one or more locations in the multimedia information displayed in the first area
8 of the GUI; and
9 wherein displaying the representation of multimedia information occurring
10 between t_1 and t_2 in the second area of the GUI comprises highlighting the one or more locations
11 in the multimedia information that occur between times t_1 and t_2 .

1 27. (Original) The method of claim 18 further comprising:

2 receiving input indicating selection of a portion of the multimedia information
3 occurring between a selection start time and a selection end time; and
4 performing a first operation on the portion of the multimedia information
5 occurring between the selection start time and the selection end time.

1 28. (Currently amended) A method of displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising video
3 information and information of a first type, the method comprising:

4 displaying a graphical user interface (GUI) on the display;
5 displaying, in a first section of a first area of the GUI, a first set of one or more
6 video keyframes extracted from the video information occurring between a start time (t_s) and an
7 end time (t_e) associated with the multimedia document, where ($t_e > t_s$);

8 displaying, in a second section of the first area of the GUI, text information
9 corresponding to the information of the first type occurring between t_s and t_e ;

10 displaying a first lens moveable in response to user input over representations of
11 multimedia information displayed in the GUI, the first lens emphasizing a portion of the first
12 section of the first area occurring between a first time (t_1) and a second time (t_2) and a portion of
13 the second section of the first area occurring between t_1 and t_2 , the emphasized portion of the
14 first section of the first area comprising a second set of one or more video keyframes extracted
15 from the video information occurring between t_1 and t_2 , the emphasized portion of the second
16 section of the first area comprising text information corresponding to information of the first type
17 occurring between t_1 and t_2 , wherein the second set of one or more keyframes is a subset of the
18 first set of one or more keyframes and ($t_s \leq t_1 < t_2 \leq t_e$);

19 displaying the second set of one or more keyframes in a first section of a second
20 area of the GUI; and

21 displaying text information corresponding to the information of the first type
22 occurring between t_1 and t_2 in a second section of the second area of the GUI.

1 29. (Currently amended) The method of claim 28 further comprising:
2 displaying a second lens moveable in response to user input over representations
3 of multimedia information displayed in the GUI, the second lens emphasizing a portion of the
4 first section of the second area and a portion of the second section of the second area, the
5 emphasized portion of the first section of the second area comprising a third set of one or more
6 video keyframes extracted from the video information occurring between a third time (t_3) and a
7 fourth time (t_4), the emphasized portion of the second section of the second area comprising text
8 information corresponding to information of the first type occurring between t_3 and t_4 , wherein
9 the third set of one or more video keyframes is a subset of the second set of one or more video
10 keyframes and ($t_1 \leq t_3 < t_4 \leq t_2$);
11 displaying a keyframe from the third set of one or more keyframes in a first
12 section of a third area of the GUI; and
13 displaying text information corresponding to the information of the first type
14 occurring between t_3 and t_4 in a second section of the third area of the GUI.

1 30. (Original) The method of claim 28 further comprising:
2 displaying a second lens emphasizing a portion of the first section of the second
3 area and a portion of the second section of the second area, the emphasized portion of the first
4 section of the second area comprising a third set of one or more video keyframes extracted from
5 the video information occurring between a third time (t_3) and a fourth time (t_4), the emphasized
6 portion of the second section of the second area comprising text information corresponding to
7 information of the first type occurring between t_3 and t_4 , wherein the third set of one or more
8 video keyframes is a subset of the second set of one or more video keyframes and ($t_1 \leq t_3 < t_4 \leq$
9 t_2);
10 outputting video information starting from t_3 or from t_4 or from a time between t_3
11 and t_4 in a first section of a third area of the GUI; and

12 displaying text information corresponding to the information of the first type
13 occurring between t_3 and t_4 in a second section of the third area of the GUI.

1 31. (Original) The method of claim 28 wherein the information of the first
2 type is audio information, and the text information corresponding to the information of the first
3 type is obtained from transcribing the audio information.

1 32. (Original) The method of claim 28 wherein the information of the first
2 type is closed-caption (CC) text information, and the text information corresponding to the
3 information of the first type is extracted from the CC text information.

1 33. (Original) The method of claim 28 wherein the multimedia information
2 stored by the multimedia document further comprises slides information, the method comprising:
3 displaying, in a third section of the first area of the GUI, a first set of one or more
4 slides extracted from the slides information occurring between t_s and t_e , wherein the first lens
5 emphasizes a portion of the third section of the first area comprising a second set of one or more
6 slides extracted from the slides information occurring between t_1 and t_2 , the second set of one or
7 more slides is a subset of the first set of one or more slides; and
8 displaying the second set of one or more slides in a third section of the second
9 area of the GUI.

1 34. (Original) The method of claim 33 further comprising:
2 displaying a second lens emphasizing a portion of the first section of the second
3 area, a portion of the second section of the second area, and a portion of the third section of the
4 second area, the emphasized portion of the first section of the second area comprising a third set
5 of one or more video keyframes extracted from the video information occurring between a third
6 time (t_3) and a fourth time (t_4), the emphasized portion of the second section of the second area
7 comprising text information corresponding to information of the first type occurring between t_3
8 and t_4 , the emphasized portion of the third section of the second area comprising a third set of

9 one or more slides extracted from the slides information occurring between t_3 and t_4 , wherein
10 the third set of one or more video keyframes is a subset of the second set of one or more video
11 keyframes, the third set of one or more slides is a subset of the second set of one or more slides,
12 and $(t_1 \leq t_3 < t_4 \leq t_2)$;

13 displaying at least one keyframe from the third set of one or more video
14 keyframes in a first section of a third area of the GUI;

15 displaying text information corresponding to the information of the first type
16 occurring between t_3 and t_4 in a second section of the third area of the GUI; and

17 displaying at least one slide from the third set of one or more slides in a third
18 section of the third area of the GUI.

1 35. (Original) The method of claim 28 wherein the multimedia information
2 stored by the multimedia document further comprises whiteboard images information, the
3 method comprising:

4 displaying, in a third section of the first area of the GUI, a first set of one or more
5 whiteboard images extracted from the whiteboard images information occurring between t_s and
6 t_e , wherein the first lens emphasizes a portion of the third section of the first area comprising a
7 second set of one or more whiteboard images extracted from the whiteboard images information
8 occurring between t_1 and t_2 , the second set of one or more whiteboard images is a subset of the
9 first set of one or more whiteboard images; and

10 displaying the second set of one or more whiteboard images in a third section of
11 the second area of the GUI.

1 36. (Original) The method of claim 35 further comprising:

2 displaying a second lens emphasizing a portion of the first section of the second
3 area, a portion of the second section of the second area, and a portion of the third section of the
4 second area, the emphasized portion of the first section of the second area comprising a third set
5 of one or more video keyframes extracted from the video information occurring between a third

6 time (t_3) and a fourth time (t_4), the emphasized portion of the second section of the second area
7 comprising text information corresponding to information of the first type occurring between t_3
8 and t_4 , the emphasized portion of the third section of the second area comprising a third set of
9 one or more whiteboard images extracted from the whiteboard images information occurring
10 between t_3 and t_4 , wherein the third set of one or more video keyframes is a subset of the second
11 set of one or more video keyframes, the third set of one or more whiteboard images is a subset of
12 the second set of one or more whiteboard images, and ($t_1 \leq t_3 < t_4 \leq t_2$);

13 displaying at least one keyframe from the third set of one or more video
14 keyframes in a first section of a third area of the GUI;

15 displaying text information corresponding to the information of the first type
16 occurring between t_3 and t_4 in a second section of the third area of the GUI; and

17 displaying a whiteboard images from the third set of one or more whiteboard
18 images in a third section of the third area of the GUI.

1 37. (Currently amended) A system for displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising
3 information of a plurality of types including information of a first type and information of a
4 second type, the system comprising:

5 means for displaying a graphical user interface (GUI) on the display;

6 means for displaying, in a first area of the GUI, a representation of the multimedia
7 information stored by the multimedia document, the displayed representation of the multimedia
8 information comprising a representation of information of the first type and a representation of
9 information of the second type;

10 means for displaying a first lens moveable in response to user input over
11 representations of multimedia information displayed in the GUI, the first lens covering a first
12 portion of the first area; and

13 means for displaying, in a second area of the GUI, a representation of multimedia
14 information displayed in the first portion of the first area, the representation of multimedia

15 information displayed in the second area comprising a portion of the representation of
16 information of the first type covered by the first lens and a portion of the representation of
17 information of the second type covered by the first lens.

1 38. (Currently amended) A system for displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising
3 information of a first type and information of a second type, the system comprising:
4 means for displaying a graphical user interface (GUI) on the display;
5 means for displaying, in a first area of the GUI, a representation of the multimedia
6 information stored by the multimedia document occurring between a start time (t_s) and an end
7 time (t_e) associated with the multimedia document, the displayed representation of the
8 multimedia information comprising a representation of information of the first type occurring
9 between t_s and t_e and a representation of information of the second type occurring between t_s
10 and t_e , where ($t_e > t_s$);
11 means for displaying a first lens moveable in response to user input over
12 representations of multimedia information displayed in the GUI, the first lens emphasizing a
13 portion of the first area of the GUI, the portion of the first area emphasized by the first lens
14 comprising a representation of multimedia information occurring between a first time (t_1) and a
15 second time (t_2), where ($t_s \leq t_1 < t_2 \leq t_e$); and
16 means for displaying, in a second area of the GUI, the representation of
17 multimedia information occurring between t_1 and t_2 , the representation of multimedia
18 information displayed in the second area comprising a representation of information of the first
19 type occurring between t_1 and t_2 and a representation of information of the second type
20 occurring between t_1 and t_2 .

1 39. (Currently amended) A system for of displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising video
3 information and information of a first type, the system comprising:

4 means for displaying a graphical user interface (GUI) on the display;
5 means for displaying, in a first section of a first area of the GUI, a first set of one
6 or more video keyframes extracted from the video information occurring between a start time (t_s)
7 and an end time (t_e) associated with the multimedia document, where ($t_e > t_s$);
8 means for displaying, in a second section of the first area of the GUI, text
9 information corresponding to the information of the first type occurring between t_s and t_e ;
10 means for displaying a first lens moveable in response to user input over
11 representations of multimedia information displayed in the GUI, the first lens emphasizing a
12 portion of the first section of the first area occurring between a first time (t_1) and a second time
13 (t_2) and a portion of the second section of the first area occurring between t_1 and t_2 , the
14 emphasized portion of the first section of the first area comprising a second set of one or more
15 video keyframes extracted from the video information occurring between t_1 and t_2 , the
16 emphasized portion of the second section of the first area comprising text information
17 corresponding to information of the first type occurring between t_1 and t_2 , wherein the second
18 set of one or more keyframes is a subset of the first set of one or more keyframes and ($t_s \leq t_1 <$
19 $t_2 \leq t_e$);
20 means for displaying the second set of one or more keyframes in a first section of
21 a second area of the GUI; and
22 means for displaying text information corresponding to the information of the first
23 type occurring between t_1 and t_2 in a second section of the second area of the GUI.

1 40. (Currently amended) A computer program product stored on a computer-
2 readable storage medium for displaying multimedia information stored in a multimedia
3 document on a display, the multimedia information comprising information of a plurality of
4 types including information of a first type and information of a second type, the computer
5 program product comprising:

6 code for displaying a graphical user interface (GUI) on the display;

code for displaying, in a first area of the GUI, a representation of the multimedia information stored by the multimedia document, the displayed representation of the multimedia information comprising a representation of information of the first type and a representation of information of the second type;

code for displaying a first lens moveable in response to user input over representations of multimedia information displayed in the GUI covering a first portion of the first area; and

code for displaying, in a second area of the GUI, a representation of multimedia information displayed in the first portion of the first area, the representation of multimedia information displayed in the second area comprising a portion of the representation of information of the first type covered by the first lens and a portion of the representation of information of the second type covered by the first lens.

41. (Original) The computer program product of claim 40 wherein the code for displaying the representation of the multimedia information stored by the multimedia document in the first area of the GUI comprises:

code for displaying a first thumbnail image in the first area of the GUI, the first thumbnail image comprising the representation of information of the first type; and

code for displaying a second thumbnail image in the first area of the GUI, the second thumbnail image comprising the representation of information of the second type.

42. (Original) The computer program product of claim 40 wherein the code for displaying, in the second area of the GUI, the representation of multimedia information displayed in the first portion of the first area comprises:

code for displaying the portion of the representation of information of the first type covered by the first lens in a first panel in the second area of the GUI; and

code for displaying the portion of the representation of information of the second type covered by the first lens in a second panel in the second area of the GUI.

1 43. (Original) The computer program product of claim 40 wherein the code
2 for displaying, in the second area of the GUI, the representation of multimedia information
3 displayed in the first portion of the first area comprises:

4 code for determining a first time and a second time associated with the first lens;

5 code for displaying, in the second area of the GUI, a representation of information
6 of the first type occurring between the first time and the second time associated with the first
7 lens; and

8 code for displaying, in the second area of the GUI, a representation of information
9 of the second type occurring between the first time and the second time associated with the first
10 lens.

1 44. (Original) The computer program product of claim 40 further comprising:
2 code for receiving user input moving the first lens to cover a second portion of the
3 first area; and

4 code for responsive to the user input, automatically changing the information
5 displayed in the second area of the GUI such that the representation of multimedia information
6 displayed in the second area of the GUI corresponds to the representation of multimedia
7 information included in the second portion of the first area.

1 45. (Currently amended) The computer program product of claim 40 further
2 comprising:

3 code for displaying a second lens moveable in response to user input over
4 representations of multimedia information displayed in the GUI, the second lens covering a first
5 portion of the second area; and

6 code for displaying, in a third area of the GUI, a representation of multimedia
7 information corresponding to the first portion of the second area, the representation of
8 multimedia information displayed in the third area comprising a portion of the representation of
9 information of the first type covered by the second lens and a portion of the representation of
10 information of the second type covered by the second lens.

1 46. (Original) The computer program product of claim 45 wherein the code
2 for displaying, in the third area of the GUI, the representation of multimedia information
3 corresponding to the first portion of the second area comprises:
4 code for determining a first time and a second time associated with the second
5 lens;
6 code for displaying, in the third area of the GUI, a representation of information
7 of the first type occurring between the first time and the second time associated with the second
8 lens; and
9 code for displaying, in the third area of the GUI, a representation of information
10 of the second type occurring between the first time and the second time associated with the
11 second lens.

1 47. (Original) The computer program product of claim 45 wherein:
2 the code for displaying the representation of the multimedia information stored by
3 the multimedia document in the first area of the GUI comprises:
4 code for displaying a first thumbnail image in the first area of the GUI, the
5 first thumbnail image comprising the representation of information of the first type; and
6 code for displaying a second thumbnail image in the first area of the GUI,
7 the second thumbnail image comprising the representation of information of the second type;
8 the code for displaying the representation of multimedia information displayed in
9 the first portion of the first area in the second area of the GUI comprises:
10 code for displaying the portion of the representation of information of the
11 first type covered by the first lens in a first panel in the second area of the GUI; and
12 code for displaying the portion of the representation of information of the
13 second type covered by the first lens in a second panel in the second area of the GUI; and
14 the code for displaying the representation of multimedia information
15 corresponding to the first portion of the second area in the third area of the GUI comprises:

16 code for displaying the representation of information of the first type
17 corresponding to the first portion of the second area of the GUI in a first sub-area of the third
18 area of the GUI; and
19 code for displaying the representation of information of the second type
20 corresponding to the first portion of the second area of the GUI in a second sub-area of the third
21 area of the GUI.

1 48. (Original) The computer program product of claim 45 further comprising:
2 code for receiving a user input moving the second lens to cover a second portion
3 of the second area; and
4 responsive to the user input, code for automatically changing the information
5 displayed in the third area of the GUI such that the representation of multimedia information
6 displayed in the third area of the GUI corresponds to the representation of the multimedia
7 information included in the second portion of the second area.

1 49. (Original) The computer program product of claim 45 further comprising:
2 code for receiving a user input moving the first lens to cover a second portion of
3 the first area; and
4 responsive to the user input, code for automatically:
5 changing the information displayed in the second area of the GUI such
6 that the representation of multimedia information displayed in the second area of the GUI
7 corresponds to the representation of multimedia information included in the second portion of
8 the first area; and
9 changing the information displayed in the third area of the GUI such that
10 the representation of multimedia information displayed in the third area of the GUI corresponds
11 to the representation of the multimedia information included in the second portion of the second
12 area.

1 50. (Original) The computer program product of claim 45 further comprising:

2 code for displaying a sub-lens covering a portion of the first area of the GUI
3 corresponding to the first portion of the second area of the GUI covered by the second lens.

1 51. (Original) The computer program product of claim 50 further comprising:
2 code for receiving a user input moving the second lens to cover a second portion
3 of the second area; and
4 responsive to the user input, code for automatically changing a position of the
5 sub-lens to cover a portion of the first area of the GUI corresponding to the second portion of the
6 second area.

1 52. (Original) The computer program product of claim 40 wherein:
2 the information of the first type corresponds to video information; and
3 the representation of the information of the first type comprises one or more video
4 keyframes extracted from the video information.

1 53. (Original) The computer program product of claim 52 wherein:
2 the information of the second type corresponds to audio information; and
3 the representation of information of the second type comprises text information
4 obtained from transcribing the audio information.

1 54. (Original) The computer program product of claim 52 wherein:
2 the information of the second type corresponds to closed-caption (CC) text
3 information; and
4 the representation of information of the second type comprises text information
5 included in the CC text information.

1 55. (Original) The computer program product of claim 40 further comprising:
2 code for receiving information indicating a user-specified concept of interest; and
3 code for analyzing the multimedia information stored in the multimedia document
4 to identify one or more locations in the multimedia information that are relevant to the user-
5 specified concept of interest;

6 wherein the code for displaying the representation of multimedia information in
7 the first area of the GUI comprises code for annotating the one or more locations in the
8 multimedia information that are relevant to the user-specified concept of interest; and
9 wherein the code for displaying, in the second area of the GUI, a representation of
10 multimedia information displayed in the first portion of the first area comprises code for
11 annotating the one or more locations in the multimedia information that are relevant to the user-
12 specified concept of interest and that are located in the first portion of the first area.

1 56. (Original) The computer program product of claim 40 further comprising:
2 code for receiving input indicating selection of a portion of the multimedia
3 information occurring between a first time and a second time; and
4 code for performing a first operation on the portion of the multimedia information
5 occurring between a first time and a second time.

1 57. (Currently amended) A computer program product stored on a computer-
2 readable storage medium for displaying multimedia information stored in a multimedia
3 document on a display, the multimedia information comprising information of a first type and
4 information of a second type, the computer program product comprising:
5 code for displaying a graphical user interface (GUI) on the display;
6 code for displaying, in a first area of the GUI, a representation of the multimedia
7 information stored by the multimedia document occurring between a start time (t_s) and an end
8 time (t_e) associated with the multimedia document, the displayed representation of the
9 multimedia information comprising a representation of information of the first type occurring
10 between t_s and t_e and a representation of information of the second type occurring between t_s
11 and t_e , where ($t_e > t_s$);
12 code for displaying a first lens moveable in response to user input over
13 representations of multimedia information displayed in the GUI, the first lens emphasizing a
14 portion of the first area of the GUI, the portion of the first area emphasized by the first lens

comprising a representation of multimedia information occurring between a first time (t_1) and a second time (t_2), where ($t_s \leq t_1 < t_2 \leq t_e$); and

code for displaying, in a second area of the GUI, the representation of multimedia information occurring between t_1 and t_2 , the representation of multimedia information displayed in the second area comprising a representation of information of the first type occurring between t_1 and t_2 and a representation of information of the second type occurring between t_1 and t_2 .

58. (Currently amended) The computer program product of claim 57 further comprising:

code for displaying a second lens moveable in response to user input over representations of multimedia information displayed in the GUI, the second lens emphasizing a portion of the second area of the GUI, the portion of the second area emphasized by the second lens comprising a representation of multimedia information occurring between a third time (t_3) and a fourth time (t_4), where ($t_1 \leq t_3 < t_4 \leq t_2$); and

code for displaying, in a third area of the GUI, the representation of multimedia information occurring between t_3 and t_4 , the representation of multimedia information displayed in the third area comprising a representation of information of the first type occurring between t_3 and t_4 and a representation of information of the second type occurring between t_3 and t_4 .

59. (Original) The computer program product of claim 58 further comprising:
code for changing the position of the first lens in response to user input such that the first lens emphasizes a portion of the first area of the GUI comprising a representation of multimedia information occurring between a fifth time (t_5) and a sixth time (t_6), where ($t_s \leq t_5 < t_6 \leq t_e$), ($t_5 \neq t_1$), and ($t_6 \neq t_2$); and

responsive to the change in the position of the first lens, code for automatically displaying, in the second area of the GUI, the representation of multimedia information occurring between t_5 and t_6 , the representation of multimedia information displayed in the

9 second area comprising a representation of information of the first type occurring between t_5 and
10 t_6 and a representation of information of the second type occurring between t_5 and t_6 .

1 60. (Original) The computer program product of claim 58 further comprising:
2 code for changing the position of the second lens in response to user input such
3 that the second lens emphasizes a portion of the second area of the GUI comprising a
4 representation of multimedia information occurring between a fifth time (t_5) and a sixth time
5 (t_6), where ($t_1 \leq t_5 < t_6 \leq t_2$), ($t_5 \neq t_3$), and ($t_6 \neq t_4$); and
6 code for responsive to the change in the position of the second lens, automatically
7 displaying, in the third area of the GUI, the representation of multimedia information occurring
8 between t_5 and t_6 , the representation of multimedia information displayed in the third area
9 comprising a representation of information of the first type occurring between t_5 and t_6 and a
10 representation of information of the second type occurring between t_5 and t_6 .

1 61. (Original) The computer program product of claim 58 further comprising:
2 code for displaying a third lens emphasizing a portion of the first area of the GUI
3 comprising a representation of multimedia information occurring between t_3 and t_4 .

1 62. (Original) The computer program product of claim 61 further comprising:
2 code for changing the position of the second lens in response to user input such
3 that the second lens emphasizes a portion of the second area of the GUI comprising a
4 representation of multimedia information occurring between a fifth time (t_5) and a sixth time
5 (t_6), where ($t_1 \leq t_5 < t_6 \leq t_2$), ($t_5 \neq t_3$), and ($t_6 \neq t_4$); and
6 code for responsive to the change in the position of the second lens, automatically
7 changing the position of the third lens such that the third lens emphasizes a portion of the first
8 area of the GUI comprising a representation of multimedia information occurring between t_5 and
9 t_6 .

1 63. (Original) The computer program product of claim 57 wherein:

2 the information of the first type is video information;
3 the information of the second type is audio information;
4 the representation of the information of the first type comprises one or more video
5 keyframes extracted from the video information; and
6 the representation of information of the second type comprises text information
7 obtained from transcribing the audio information.

1 64. (Original) The computer program product of claim 57 wherein:
2 the information of the first type is video information;
3 the information of the second type is closed-caption (CC) text information;
4 the representation of the information of the first type comprises one or more video
5 keyframes extracted from the video information; and
6 the representation of the information of the second type comprises text
7 information included in the CC text information.

1 65. (Original) The computer program product of claim 57 further comprising:
2 code for receiving information indicating a first topic; and
3 code for analyzing the multimedia information stored in the multimedia document
4 to identify one or more locations in the multimedia information that are relevant to the first topic;
5 wherein the code for displaying the representation of the multimedia information
6 stored by the multimedia document occurring between t_s and t_e in the first area of the GUI
7 comprises code for highlighting the one or more locations in the multimedia information
8 displayed in the first area of the GUI; and
9 wherein the code for displaying the representation of multimedia information
10 occurring between t_1 and t_2 in the second area of the GUI comprises code for highlighting the
11 one or more locations in the multimedia information that occur between times t_1 and t_2 .

1 66. (Original) The computer program product of claim 57 further comprising:
2 code for receiving input indicating selection of a portion of the multimedia
3 information occurring between a selection start time and a selection end time; and

4 code for performing a first operation on the portion of the multimedia information
5 occurring between the selection start time and the selection end time.

1 67. (Currently amended) A computer program product stored on a computer-
2 readable storage medium for displaying multimedia information stored in a multimedia
3 document on a display, the multimedia information comprising video information and
4 information of a first type, the computer program product comprising:

5 code for displaying a graphical user interface (GUI) on the display;
6 code for displaying, in a first section of a first area of the GUI, a first set of one or
7 more video keyframes extracted from the video information occurring between a start time (t_s)
8 and an end time (t_e) associated with the multimedia document, where ($t_e > t_s$);

9 code for displaying, in a second section of the first area of the GUI, text
10 information corresponding to the information of the first type occurring between t_s and t_e ;

11 code for displaying a first lens moveable in response to user input over
12 representations of multimedia information displayed in the GUI, the first lens emphasizing a
13 portion of the first section of the first area occurring between a first time (t_1) and a second time
14 (t_2) and a portion of the second section of the first area occurring between t_1 and t_2 , the
15 emphasized portion of the first section of the first area comprising a second set of one or more
16 video keyframes extracted from the video information occurring between t_1 and t_2 , the
17 emphasized portion of the second section of the first area comprising text information
18 corresponding to information of the first type occurring between t_1 and t_2 , wherein the second
19 set of one or more keyframes is a subset of the first set of one or more keyframes and ($t_s \leq t_1 <$
20 $t_2 \leq t_e$);

21 code for displaying the second set of one or more keyframes in a first section of a
22 second area of the GUI; and

23 code for displaying text information corresponding to the information of the first
24 type occurring between t_1 and t_2 in a second section of the second area of the GUI.

1 68. (Currently amended) The computer program product of claim 67 further
2 comprising:

3 code for displaying a second lens moveable in response to user input over
4 representations of multimedia information displayed in the GUI, the second lens emphasizing a
5 portion of the first section of the second area and a portion of the second section of the second
6 area, the emphasized portion of the first section of the second area comprising a third set of one
7 or more video keyframes extracted from the video information occurring between a third time
8 (t_3) and a fourth time (t_4), the emphasized portion of the second section of the second area
9 comprising text information corresponding to information of the first type occurring between t_3
10 and t_4 , wherein the third set of one or more video keyframes is a subset of the second set of one
11 or more video keyframes and ($t_1 \leq t_3 < t_4 \leq t_2$);

12 code for displaying a keyframe from the third set of one or more keyframes in a
13 first section of a third area of the GUI; and

14 code for displaying text information corresponding to the information of the first
15 type occurring between t_3 and t_4 in a second section of the third area of the GUI.

1 69. (Original) The computer program product of claim 67 further comprising:

2 code for displaying a second lens emphasizing a portion of the first section of the
3 second area and a portion of the second section of the second area, the emphasized portion of the
4 first section of the second area comprising a third set of one or more video keyframes extracted
5 from the video information occurring between a third time (t_3) and a fourth time (t_4), the
6 emphasized portion of the second section of the second area comprising text information
7 corresponding to information of the first type occurring between t_3 and t_4 , wherein the third set
8 of one or more video keyframes is a subset of the second set of one or more video keyframes and
9 ($t_1 \leq t_3 < t_4 \leq t_2$);

10 code for outputting video information starting from t_3 or from t_4 or from a time
11 between t_3 and t_4 in a first section of a third area of the GUI; and

12 code for displaying text information corresponding to the information of the first
13 type occurring between t_3 and t_4 in a second section of the third area of the GUI.

1 70. (Original) The computer program product of claim 67 wherein the
2 information of the first type is audio information, and the text information corresponding to the
3 information of the first type is obtained from transcribing the audio information.

1 71. (Original) The computer program product of claim 67 wherein the
2 information of the first type is closed-caption (CC) text information, and the text information
3 corresponding to the information of the first type is extracted from the CC text information.

1 72. (Original) The computer program product of claim 67 wherein the
2 multimedia information stored by the multimedia document further comprises slides information,
3 the computer program product further comprising:
4 code for displaying, in a third section of the first area of the GUI, a first set of one
5 or more slides extracted from the slides information occurring between t_s and t_e , wherein the
6 first lens emphasizes a portion of the third section of the first area comprising a second set of one
7 or more slides extracted from the slides information occurring between t_1 and t_2 , the second set
8 of one or more slides is a subset of the first set of one or more slides; and
9 code for displaying the second set of one or more slides in a third section of the
10 second area of the GUI

1 73. (Original) The computer program product of claim 72 further comprising:
2 code for displaying a second lens emphasizing a portion of the first section of the
3 second area, a portion of the second section of the second area, and a portion of the third section
4 of the second area, the emphasized portion of the first section of the second area comprising a
5 third set of one or more video keyframes extracted from the video information occurring between
6 a third time (t_3) and a fourth time (t_4), the emphasized portion of the second section of the
7 second area comprising text information corresponding to information of the first type occurring
8 between t_3 and t_4 , the emphasized portion of the third section of the second area comprising a

9 third set of one or more slides extracted from the slides information occurring between t_3 and t_4 ,
10 wherein the third set of one or more video keyframes is a subset of the second set of one or more
11 video keyframes, the third set of one or more slides is a subset of the second set of one or more
12 slides, and $(t_1 \leq t_3 < t_4 \leq t_2)$;

13 code for displaying at least one keyframe from the third set of one or more video
14 keyframes in a first section of a third area of the GUI;

15 code for displaying text information corresponding to the information of the first
16 type occurring between t_3 and t_4 in a second section of the third area of the GUI; and

17 displaying at least one slide from the third set of one or more slides in a third
18 section of the third area of the GUI.

1 74. (Original) The computer program product of claim 67 wherein the
2 multimedia information stored by the multimedia document further comprises whiteboard
3 images information, the computer program product further comprising:

4 code for displaying, in a third section of the first area of the GUI, a first set of one
5 or more whiteboard images extracted from the whiteboard images information occurring
6 between t_s and t_e , wherein the first lens emphasizes a portion of the third section of the first area
7 comprising a second set of one or more whiteboard images extracted from the whiteboard images
8 information occurring between t_1 and t_2 , the second set of one or more whiteboard images is a
9 subset of the first set of one or more whiteboard images; and

10 code for displaying the second set of one or more whiteboard images in a third
11 section of the second area of the GUI.

1 75. (Original) The computer program product of claim 74 further comprising:
2 code for displaying a second lens emphasizing a portion of the first section of the
3 second area, a portion of the second section of the second area, and a portion of the third section
4 of the second area, the emphasized portion of the first section of the second area comprising a
5 third set of one or more video keyframes extracted from the video information occurring between
6 a third time (t_3) and a fourth time (t_4), the emphasized portion of the second section of the

7 second area comprising text information corresponding to information of the first type occurring
8 between t_3 and t_4 , the emphasized portion of the third section of the second area comprising a
9 third set of one or more whiteboard images extracted from the whiteboard images information
10 occurring between t_3 and t_4 , wherein the third set of one or more video keyframes is a subset of
11 the second set of one or more video keyframes, the third set of one or more whiteboard images is
12 a subset of the second set of one or more whiteboard images, and $(t_1 \leq t_3 < t_4 \leq t_2)$;

13 code for displaying at least one keyframe from the third set of one or more video
14 keyframes in a first section of a third area of the GUI;

15 code for displaying text information corresponding to the information of the first
16 type occurring between t_3 and t_4 in a second section of the third area of the GUI; and

17 code for displaying a whiteboard images from the third set of one or more
18 whiteboard images in a third section of the third area of the GUI.

1 76. (Currently amended) A system for displaying multimedia information
2 stored in a multimedia document, the multimedia information comprising information of a
3 plurality of types including information of a first type and information of a second type, the
4 system comprising:

5 a display;

6 a processor; and

7 a memory coupled to the processor, the memory configured to store a plurality of
8 code modules for execution by the processor, the plurality of code modules comprising:

9 a code module for displaying a graphical user interface (GUI) on the
10 display;

11 a code module for displaying, in a first area of the GUI, a representation of
12 the multimedia information stored by the multimedia document, the displayed representation of
13 the multimedia information comprising a representation of information of the first type and a
14 representation of information of the second type;

15 a code module for displaying a first lens moveable in response to user
16 input over representations of multimedia information displayed in the GUI, the first lens
17 covering a first portion of the first area; and

18 a code module for displaying, in a second area of the GUI, a
19 representation of multimedia information displayed in the first portion of the first area, the
20 representation of multimedia information displayed in the second area comprising a portion of
21 the representation of information of the first type covered by the first lens and a portion of the
22 representation of information of the second type covered by the first lens.

1 77. (Original) The system of claim 76 wherein the code module for
2 displaying the representation of the multimedia information stored by the multimedia document
3 in the first area of the GUI comprises:

4 a code module for displaying a first thumbnail image in the first area of the GUI,
5 the first thumbnail image comprising the representation of information of the first type; and
6 a code module for displaying a second thumbnail image in the first area of the
7 GUI, the second thumbnail image comprising the representation of information of the second
8 type.

1 78. (Original) The system of claim 76 wherein the code module for
2 displaying, in the second area of the GUI, the representation of multimedia information
3 displayed in the first portion of the first area comprises:

4 a code module for displaying the portion of the representation of information of
5 the first type covered by the first lens in a first panel in the second area of the GUI; and
6 a code module for displaying the portion of the representation of information of
7 the second type covered by the first lens in a second panel in the second area of the GUI.

1 79. (Original) The system of claim 76 wherein the code module for
2 displaying, in the second area of the GUI, the representation of multimedia information
3 displayed in the first portion of the first area comprises:

4 a code module for determining a first time and a second time associated with the
5 first lens;

6 a code module for displaying, in the second area of the GUI, a representation of
7 information of the first type occurring between the first time and the second time associated with
8 the first lens; and

9 a code module for displaying, in the second area of the GUI, a representation of
10 information of the second type occurring between the first time and the second time associated
11 with the first lens.

1 80. (Original) The system of claim 76 wherein the plurality of code modules
2 further comprises:

3 a code module for receiving user input moving the first lens to cover a second
4 portion of the first area; and

5 responsive to the user input, a code module for automatically changing the
6 information displayed in the second area of the GUI such that the representation of multimedia
7 information displayed in the second area of the GUI corresponds to the representation of
8 multimedia information included in the second portion of the first area.

1 81. (Currently amended) The system of claim 76 wherein the plurality of
2 code modules further comprises:

3 a code module for displaying a second lens moveable in response to user input
4 over representations of multimedia information displayed in the GUI, the second lens covering a
5 first portion of the second area; and

6 a code module for displaying, in a third area of the GUI, a representation of
7 multimedia information corresponding to the first portion of the second area, the representation
8 of multimedia information displayed in the third area comprising a portion of the representation
9 of information of the first type covered by the second lens and a portion of the representation of
10 information of the second type covered by the second lens.

1 82. (Original) The system of claim 81 wherein the code module for
2 displaying, in the third area of the GUI, the representation of multimedia information
3 corresponding to the first portion of the second area comprises:
4 a code module for determining a first time and a second time associated with the
5 second lens;
6 a code module for displaying, in the third area of the GUI, a representation of
7 information of the first type occurring between the first time and the second time associated with
8 the second lens; and
9 a code module for displaying, in the third area of the GUI, a representation of
10 information of the second type occurring between the first time and the second time associated
11 with the second lens.

1 83. (Original) The system of claim 81 wherein:
2 the code module for displaying the representation of the multimedia information
3 stored by the multimedia document in the first area of the GUI comprises:
4 a code module for displaying a first thumbnail image in the first area of
5 the GUI, the first thumbnail image comprising the representation of information of the first type;
6 and
7 a code module for displaying a second thumbnail image in the first area of
8 the GUI, the second thumbnail image comprising the representation of information of the second
9 type;
10 the code module for displaying the representation of multimedia information
11 displayed in the first portion of the first area in the second area of the GUI comprises:
12 a code module for displaying the portion of the representation of
13 information of the first type covered by the first lens in a first panel in the second area of the
14 GUI; and
15 a code module for displaying the portion of the representation of
16 information of the second type covered by the first lens in a second panel in the second area of
17 the GUI; and

18 the code module for displaying the representation of multimedia information
19 corresponding to the first portion of the second area in the third area of the GUI comprises:
20 a code module for displaying the representation of information of the first
21 type corresponding to the first portion of the second area of the GUI in a first sub-area of the
22 third area of the GUI; and
23 a code module for displaying the representation of information of the
24 second type corresponding to the first portion of the second area of the GUI in a second sub-area
25 of the third area of the GUI.

1 84. (Original) The system of claim 81 wherein the plurality of code modules
2 further comprises:
3 a code module for receiving a user input moving the second lens to cover a
4 second portion of the second area; and
5 responsive to the user input, a code module for automatically changing the
6 information displayed in the third area of the GUI such that the representation of multimedia
7 information displayed in the third area of the GUI corresponds to the representation of the
8 multimedia information included in the second portion of the second area.

1 85. (Original) The system of claim 81 wherein the plurality of code modules
2 further comprises:
3 a code module for receiving a user input moving the first lens to cover a second
4 portion of the first area; and
5 responsive to the user input, a code module for automatically:
6 changing the information displayed in the second area of the GUI such
7 that the representation of multimedia information displayed in the second area of the GUI
8 corresponds to the representation of multimedia information included in the second portion of
9 the first area; and
10 changing the information displayed in the third area of the GUI such that
11 the representation of multimedia information displayed in the third area of the GUI corresponds

12 to the representation of the multimedia information included in the second portion of the second
13 area.

1 86. (Original) The system of claim 81 wherein the plurality of code modules
2 further comprises:

3 a code module for displaying a sub-lens covering a portion of the first area of the
4 GUI corresponding to the first portion of the second area of the GUI covered by the second lens.

1 87. (Original) The system of claim 86 wherein the plurality of code modules
2 further comprises:

3 a code module for receiving a user input moving the second lens to cover a
4 second portion of the second area; and

5 responsive to the user input, a code module for automatically changing a position
6 of the sub-lens to cover a portion of the first area of the GUI corresponding to the second portion
7 of the second area.

1 88. (Original) The system of claim 76 wherein:

2 the information of the first type corresponds to video information; and

3 the representation of the information of the first type comprises one or more video
4 keyframes extracted from the video information.

1 89. (Original) The system of claim 88 wherein:

2 the information of the second type corresponds to audio information; and

3 the representation of information of the second type comprises text information
4 obtained from transcribing the audio information.

1 90. (Original) The system of claim 88 wherein:

2 the information of the second type corresponds to closed-caption (CC) text
3 information; and

4 the representation of information of the second type comprises text information
5 included in the CC text information.

1 91. (Original) The system of claim 76 wherein the plurality of code modules
2 further comprises:

3 a code module for receiving information indicating a user-specified concept of
4 interest; and

5 a code module for analyzing the multimedia information stored in the multimedia
6 document to identify one or more locations in the multimedia information that are relevant to the
7 user-specified concept of interest;

8 wherein the code module for displaying the representation of multimedia
9 information in the first area of the GUI comprises a code module for annotating the one or more
10 locations in the multimedia information that are relevant to the user-specified concept of interest;
11 and

12 wherein the code module for displaying, in the second area of the GUI, a
13 representation of multimedia information displayed in the first portion of the first area comprises
14 a code module for annotating the one or more locations in the multimedia information that are
15 relevant to the user-specified concept of interest and that are located in the first portion of the
16 first area.

1 92. (Original) The system of claim 76 wherein the plurality of code modules
2 further comprises:

3 a code module for receiving input indicating selection of a portion of the
4 multimedia information occurring between a first time and a second time; and

5 a code module for performing a first operation on the portion of the multimedia
6 information occurring between a first time and a second time.

7 93. (Currently amended) A system for displaying multimedia information
8 stored in a multimedia document, the multimedia information comprising information of a first
9 type and information of a second type, the system comprising:

10 a display;

11 a processor; and

12 a memory coupled to the processor, the memory configured to store a plurality of
13 code modules for execution by the processor, the plurality of code modules comprising:
14 a code module for displaying a graphical user interface (GUI) on the
15 display;
16 a code module for displaying, in a first area of the GUI, a representation of
17 the multimedia information stored by the multimedia document occurring between a start time
18 (t_s) and an end time (t_e) associated with the multimedia document, the displayed representation
19 of the multimedia information comprising a representation of information of the first type
20 occurring between t_s and t_e and a representation of information of the second type occurring
21 between t_s and t_e , where ($t_e > t_s$);
22 a code module for displaying a first lens moveable in response to user
23 input over representations of multimedia information displayed in the GUI, the first lens
24 emphasizing a portion of the first area of the GUI, the portion of the first area emphasized by the
25 first lens comprising a representation of multimedia information occurring between a first time
26 (t_1) and a second time (t_2), where ($t_s \leq t_1 < t_2 \leq t_e$); and
27 a code module for displaying, in a second area of the GUI, the
28 representation of multimedia information occurring between t_1 and t_2 , the representation of
29 multimedia information displayed in the second area comprising a representation of information
30 of the first type occurring between t_1 and t_2 and a representation of information of the second
31 type occurring between t_1 and t_2 .

1 94. (Currently amended) The system of claim 93 wherein the plurality of
2 code modules further comprises:
3 a code module for displaying a second lens moveable in response to user input
4 over representations of multimedia information displayed in the GUI, the second lens
5 emphasizing a portion of the second area of the GUI, the portion of the second area emphasized
6 by the second lens comprising a representation of multimedia information occurring between a
7 third time (t_3) and a fourth time (t_4), where ($t_1 \leq t_3 < t_4 \leq t_2$); and

8 a code module for displaying, in a third area of the GUI, the representation of
9 multimedia information occurring between t_3 and t_4 , the representation of multimedia
10 information displayed in the third area comprising a representation of information of the first
11 type occurring between t_3 and t_4 and a representation of information of the second type
12 occurring between t_3 and t_4 .

1 95. (Original) The system of claim 94 wherein the plurality of code modules
2 further comprises:

3 a code module for changing the position of the first lens in response to user input
4 such that the first lens emphasizes a portion of the first area of the GUI comprising a
5 representation of multimedia information occurring between a fifth time (t_5) and a sixth time
6 (t_6), where ($t_5 \leq t_5 < t_6 \leq t_6$), ($t_5 \neq t_1$), and ($t_6 \neq t_2$); and

7 responsive to the change in the position of the first lens, a code module for
8 automatically displaying, in the second area of the GUI, the representation of multimedia
9 information occurring between t_5 and t_6 , the representation of multimedia information displayed
10 in the second area comprising a representation of information of the first type occurring between
11 t_5 and t_6 and a representation of information of the second type occurring between t_5 and t_6 .

1 96. (Original) The system of claim 94 wherein the plurality of code modules
2 further comprises:

3 a code module for changing the position of the second lens in response to user
4 input such that the second lens emphasizes a portion of the second area of the GUI comprising a
5 representation of multimedia information occurring between a fifth time (t_5) and a sixth time
6 (t_6), where ($t_1 \leq t_5 < t_6 \leq t_2$), ($t_5 \neq t_3$), and ($t_6 \neq t_4$); and

7 responsive to the change in the position of the second lens, a code module for
8 automatically displaying, in the third area of the GUI, the representation of multimedia
9 information occurring between t_5 and t_6 , the representation of multimedia information displayed

10 in the third area comprising a representation of information of the first type occurring between t_5
11 and t_6 and a representation of information of the second type occurring between t_5 and t_6 .

1 97. (Original) The system of claim 94 wherein the plurality of code modules
2 further comprises:

3 a code module for displaying a third lens emphasizing a portion of the first area of
4 the GUI comprising a representation of multimedia information occurring between t_3 and t_4 .

1 98. (Original) The system of claim 97 wherein the plurality of code modules
2 further comprises:

3 a code module for changing the position of the second lens in response to user
4 input such that the second lens emphasizes a portion of the second area of the GUI comprising a
5 representation of multimedia information occurring between a fifth time (t_5) and a sixth time
6 (t_6), where ($t_1 \leq t_5 < t_6 \leq t_2$), ($t_5 \neq t_3$), and ($t_6 \neq t_4$); and

7 responsive to the change in the position of the second lens, a code module for
8 automatically changing the position of the third lens such that the third lens emphasizes a portion
9 of the first area of the GUI comprising a representation of multimedia information occurring
10 between t_5 and t_6 .

1 99. (Original) The system of claim 93 wherein:

2 the information of the first type is video information;

3 the information of the second type is audio information;

4 the representation of the information of the first type comprises one or more video
5 keyframes extracted from the video information; and

6 the representation of information of the second type comprises text information
7 obtained from transcribing the audio information.

1 100. (Original) The system of claim 93 wherein:

2 the information of the first type is video information;

3 the information of the second type is closed-caption (CC) text information;
4 the representation of the information of the first type comprises one or more video
5 keyframes extracted from the video information; and
6 the representation of the information of the second type comprises text
7 information included in the CC text information.

1 101. (Original) The system of claim 93 wherein the plurality of code modules
2 further comprises:
3 a code module for receiving information indicating a first topic; and
4 a code module for analyzing the multimedia information stored in the multimedia
5 document to identify one or more locations in the multimedia information that are relevant to the
6 first topic;
7 wherein the code module for displaying the representation of the multimedia
8 information stored by the multimedia document occurring between t_s and t_e in the first area of
9 the GUI comprises a code module for highlighting the one or more locations in the multimedia
10 information displayed in the first area of the GUI; and
11 wherein the code module for displaying the representation of multimedia
12 information occurring between t_1 and t_2 in the second area of the GUI comprises a code module
13 for highlighting the one or more locations in the multimedia information that occur between
14 times t_1 and t_2 .

1 102. (Original) The system of claim 93 wherein the plurality of code modules
2 further comprises:
3 a code module for receiving input indicating selection of a portion of the
4 multimedia information occurring between a selection start time and a selection end time; and
5 a code module for performing a first operation on the portion of the multimedia
6 information occurring between the selection start time and the selection end time.

1 103. (Currently amended) A system of displaying multimedia information
2 stored in a multimedia document on a display, the multimedia information comprising video
3 information and information of a first type, the system comprising:
4 a display;
5 a processor; and
6 a memory coupled to the processor, the memory configured to store a computer
7 program;
8 wherein the processor is operative with the computer program to:
9 display a graphical user interface (GUI) on the display;
10 display, in a first section of a first area of the GUI, a first set of one or
11 more video keyframes extracted from the video information occurring between a start time (t_s)
12 and an end time (t_e) associated with the multimedia document, where ($t_e > t_s$);
13 display, in a second section of the first area of the GUI, text information
14 corresponding to the information of the first type occurring between t_s and t_e ;
15 display a first lens moveable in response to user input over representations
16 of multimedia information displayed in the GUI, the first lens emphasizing a portion of the first
17 section of the first area occurring between a first time (t_1) and a second time (t_2) and a portion of
18 the second section of the first area occurring between t_1 and t_2 , the emphasized portion of the
19 first section of the first area comprising a second set of one or more video keyframes extracted
20 from the video information occurring between t_1 and t_2 , the emphasized portion of the second
21 section of the first area comprising text information corresponding to information of the first type
22 occurring between t_1 and t_2 , wherein the second set of one or more keyframes is a subset of the
23 first set of one or more keyframes and ($t_s \leq t_1 < t_2 \leq t_e$);
24 display the second set of one or more keyframes in a first section of a
25 second area of the GUI; and
26 display text information corresponding to the information of the first type
27 occurring between t_1 and t_2 in a second section of the second area of the GUI.

1 104. (Currently amended) The system of claim 103 wherein the processor is
2 operative with the computer program to:

3 display a second lens moveable in response to user input over representations of
4 multimedia information displayed in the GUI, the second lens emphasizing a portion of the first
5 section of the second area and a portion of the second section of the second area, the emphasized
6 portion of the first section of the second area comprising a third set of one or more video
7 keyframes extracted from the video information occurring between a third time (t_3) and a fourth
8 time (t_4), the emphasized portion of the second section of the second area comprising text
9 information corresponding to information of the first type occurring between t_3 and t_4 , wherein
10 the third set of one or more video keyframes is a subset of the second set of one or more video
11 keyframes and ($t_1 \leq t_3 < t_4 \leq t_2$);

12 display a keyframe from the third set of one or more keyframes in a first section
13 of a third area of the GUI; and

14 display text information corresponding to the information of the first type
15 occurring between t_3 and t_4 in a second section of the third area of the GUI.

1 105. (Original) The system of claim 103 wherein the processor is operative
2 with the computer program to:

3 display a second lens emphasizing a portion of the first section of the second area
4 and a portion of the second section of the second area, the emphasized portion of the first section
5 of the second area comprising a third set of one or more video keyframes extracted from the
6 video information occurring between a third time (t_3) and a fourth time (t_4), the emphasized
7 portion of the second section of the second area comprising text information corresponding to
8 information of the first type occurring between t_3 and t_4 , wherein the third set of one or more
9 video keyframes is a subset of the second set of one or more video keyframes and ($t_1 \leq t_3 < t_4 \leq$
10 t_2);

11 output video information starting from t_3 or from t_4 or from a time between t_3
12 and t_4 in a first section of a third area of the GUI; and
13 display text information corresponding to the information of the first type
14 occurring between t_3 and t_4 in a second section of the third area of the GUI.

1 106. (Original) The system of claim 103 wherein the information of the first
2 type is audio information, and the text information corresponding to the information of the first
3 type is obtained from transcribing the audio information.

1 107. (Original) The system of claim 103 wherein the information of the first
2 type is closed-caption (CC) text information, and the text information corresponding to the
3 information of the first type is extracted from the CC text information.

1 108. (Currently amended) The system of claim 103 wherein the multimedia
2 information stored by the multimedia document further comprises slides information, and
3 wherein the processor is operative with the computer program to:
4 display, in a third section of the first area of the GUI, a first set of one or more
5 slides extracted from the slides information occurring between t_s and t_e , wherein the first lens
6 emphasizes a portion of the third section of the first area comprising a second set of one or more
7 slides extracted from the slides information occurring between t_1 and t_2 , the second set of one or
8 more slides is a subset of the first set of one or more slides; and
9 display the second set of one or more slides in a third section of the second area of
10 the GUI.

1 109. (Original) The system of claim 108 wherein the processor is operative
2 with the computer program to:
3 display a second lens emphasizing a portion of the first section of the second area,
4 a portion of the second section of the second area, and a portion of the third section of the second
5 area, the emphasized portion of the first section of the second area comprising a third set of one
6 or more video keyframes extracted from the video information occurring between a third time

(t₃) and a fourth time (t₄), the emphasized portion of the second section of the second area comprising text information corresponding to information of the first type occurring between t₃ and t₄, the emphasized portion of the third section of the second area comprising a third set of one or more slides extracted from the slides information occurring between t₃ and t₄, wherein the third set of one or more video keyframes is a subset of the second set of one or more video keyframes, the third set of one or more slides is a subset of the second set of one or more slides, and (t₁ ≤ t₃ < t₄ ≤ t₂);

display at least one keyframe from the third set of one or more video keyframes in a first section of a third area of the GUI;

display text information corresponding to the information of the first type occurring between t₃ and t₄ in a second section of the third area of the GUI; and

display at least one slide from the third set of one or more slides in a third section of the third area of the GUI.

110. (Original) The system of claim 103 wherein the multimedia information stored by the multimedia document further comprises whiteboard images information, and wherein the processor is operative with the computer program to:

display, in a third section of the first area of the GUI, a first set of one or more whiteboard images extracted from the whiteboard images information occurring between t_s and t_e, wherein the first lens emphasizes a portion of the third section of the first area comprising a second set of one or more whiteboard images extracted from the whiteboard images information occurring between t₁ and t₂, the second set of one or more whiteboard images is a subset of the first set of one or more whiteboard images; and

display the second set of one or more whiteboard images in a third section of the second area of the GUI.

111. (Original) The system of claim 110 wherein the processor is operative with the computer program to:

3 display a second lens emphasizing a portion of the first section of the second area,
4 a portion of the second section of the second area, and a portion of the third section of the second
5 area, the emphasized portion of the first section of the second area comprising a third set of one
6 or more video keyframes extracted from the video information occurring between a third time
7 (t_3) and a fourth time (t_4), the emphasized portion of the second section of the second area
8 comprising text information corresponding to information of the first type occurring between t_3
9 and t_4 , the emphasized portion of the third section of the second area comprising a third set of
10 one or more whiteboard images extracted from the whiteboard images information occurring
11 between t_3 and t_4 , wherein the third set of one or more video keyframes is a subset of the second
12 set of one or more video keyframes, the third set of one or more whiteboard images is a subset of
13 the second set of one or more whiteboard images, and ($t_1 \leq t_3 < t_4 \leq t_2$);

14 display at least one keyframe from the third set of one or more video keyframes in
15 a first section of a third area of the GUI;

16 display text information corresponding to the information of the first type
17 occurring between t_3 and t_4 in a second section of the third area of the GUI; and

18 display a whiteboard images from the third set of one or more whiteboard images
19 in a third section of the third area of the GUI.